

FILE 'HOME' ENTERED AT 13:15:11 ON 04 MAR 2004

=> index bioscience

FILE 'DRUGMONOG' ACCESS NOT AUTHORIZED

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

0.21

0.21

INDEX 'ADISCTI, ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, AQUASCI, BIOBUSINESS, BIOCOMMERCE, BIOSIS, BIOTECHABS, BIOTECHDS, BIOTECHNO, CABA, CANCERLIT, CAPLUS, CEABA-VTB, CEN, CIN, CONFSCI, CROPB, CROPU, DISSABS, DDFB, DDFU, DGENE, DRUGB, DRUGMONOG2, ...' ENTERED AT 13:15:23 ON 04 MAR 2004

68 FILES IN THE FILE LIST IN STNINDEX

Enter SET DETAIL ON to see search term postings or to view
search error messages that display as 0* with SET DETAIL OFF.

=> s galactosaminidase

4 FILE AGRICOLA
7 FILE AQUASCI
2 FILE BIOBUSINESS
336 FILE BIOSIS
20 FILE BIOTECHABS
20 FILE BIOTECHDS
57 FILE BIOTECHNO
21 FILE CABA
78 FILE CANCERLIT
274 FILE CAPLUS
3 FILE CEABA-VTB
2 FILE CONFSCI
9 FILE DISSABS
8 FILE DDFB
51 FILE DDFU
10 FILE DGENE
8 FILE DRUGB
54 FILE DRUGU
2 FILE EMBAL
154 FILE EMBASE
26 FILE ESBIODASE
2 FILE FEDRIP
3 FILE FROSTI
1 FILE FSTA
9 FILE GENBANK
30 FILE IFIPAT
86 FILE JICST-EPLUS
42 FILE LIFESCI
474 FILE MEDLINE
2 FILE NIOSHTIC
4 FILE NTIS

51 FILES SEARCHED...

92 FILE PASCAL
1 FILE PROMT
98 FILE SCISEARCH
78 FILE TOXCENTER
122 FILE USPATFULL
4 FILE USPAT2
1 FILE VETB
1 FILE VETU
36 FILE WPIDS
36 FILE WPINDEX

41 FILES HAVE ONE OR MORE ANSWERS, 68 FILES SEARCHED IN STNINDEX

L1 QUE GALACTOSAMINIDASE

=> d rank

F1	474	MEDLINE
F2	336	BIOSIS
F3	274	CAPLUS
F4	154	EMBASE
F5	122	USPATFULL
F6	98	SCISEARCH
F7	92	PASCAL
F8	86	JICST-EPLUS
F9	78	CANCERLIT
F10	78	TOXCENTER
F11	57	BIOTECHNO
F12	54	DRUGU
F13	51	DDFU
F14	42	LIFESCI
F15	36	WPIDS
F16	36	WPINDEX
F17	30	IFIPAT
F18	26	ESBIOBASE
F19	21	CABA
F20	20	BIOTECHABS
F21	20	BIOTECHDS
F22	10	DGENE
F23	9	DISSABS
F24	9	GENBANK
F25	8	DDFB
F26	8	DRUGB
F27	7	AQUASCI
F28	4	AGRICOLA
F29	4	NTIS
F30	4	USPAT2
F31	3	CEABA-VTB
F32	3	FROSTI
F33	2	BIOBUSINESS
F34	2	CONFSCI
F35	2	EMBAL
F36	2	FEDRIP
F37	2	NIOSHTIC
F38	1	FSTA
F39	1	PROMT
F40	1	VETB
F41	1	VETU

=> file f1-f14

COST IN U.S. DOLLARS

SINCE FILE
ENTRY

TOTAL
SESSION

FULL ESTIMATED COST

1.14

1.35

FILE 'MEDLINE' ENTERED AT 13:16:51 ON 04 MAR 2004

FILE 'BIOSIS' ENTERED AT 13:16:51 ON 04 MAR 2004

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FILE 'CAPLUS' ENTERED AT 13:16:51 ON 04 MAR 2004

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FILE 'EMBASE' ENTERED AT 13:16:51 ON 04 MAR 2004

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FILE 'DDFU' ACCESS NOT AUTHORIZED

FILE 'LIFESCI' ENTERED AT 13:16:51 ON 04 MAR 2004
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=> s l1 and perfringens

L2 46 L1 AND PERFRINGENS

=> dup rem l2

PROCESSING COMPLETED FOR L2

L3 36 DUP REM L2 (10 DUPLICATES REMOVED)

=> s l3 and (isolat? or purif? or character?)

8 FILES SEARCHED...

L4 26 L3 AND (ISOLAT? OR PURIF? OR CHARACTER?)

=> d l4 ibib ab 1-26

L4 ANSWER 12 OF 26 USPATFULL on STN

ACCESSION NUMBER: 2003:99697 USPATFULL

TITLE: Alpha-N-acetylgalactosaminidase from Clostridium
perfringens

INVENTOR(S): Smith, Daniel S., Columbia, MO, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003068804	A1	20030410
APPLICATION INFO.:	US 2002-59447	A1	20020129 (10)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1998-185476, filed on 3 Nov 1998, GRANTED, Pat. No. US 6399749		

	NUMBER	DATE
PRIORITY INFORMATION:	US 1997-64683P	19971103 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	KOHN & ASSOCIATES, Suite 410, 30500 Northwestern Highway, Farmington Hills, MI, 48334	
NUMBER OF CLAIMS:	12	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	8 Drawing Page(s)	
LINE COUNT:	930	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB An **isolated** and **purified** α -N-acetyl-D-**galactosaminidase** from Clostridium **perfringens** and homologs thereof are disclosed. A method for **purifying** and **isolating** the α -N-acetylgalactosaminidase from Clostridium **perfringens** by removing neuramidases is disclosed. A process for using the α -N-acetylgalactosaminidase from Clostridium **perfringens** in altering type A blood cells to type O blood cells is disclosed. A process for altering cells expressing blood group A epitope by using α -N-acetylgalactosaminidase **isolated** from Clostridium **perfringens** in altering the cells expressing blood group A epitope to cells expressing blood group O epitope is disclosed.

L4 ANSWER 3 OF 26 MEDLINE on STN
ACCESSION NUMBER: 81069857 MEDLINE
DOCUMENT NUMBER: PubMed ID: 6254979
TITLE: **Purification and properties of
alpha-N-acetylgalactosaminidase from Clostridium
perfringens.**
AUTHOR: Levy G N; Aminoff D
SOURCE: Journal of biological chemistry, (1980 Dec 25) 255 (24)
11737-42.
Journal code: 2985121R. ISSN: 0021-9258.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 198102
ENTRY DATE: Entered STN: 19900316
Last Updated on STN: 19970203
Entered Medline: 19810219

AB Exo-alpha-N-acetylgalactosaminidase has been **purified** 8000-fold
from Clostridium **perfringens** by gel filtration, ion exchange
chromatography, isoelectric precipitation, and negative adsorption on
human O type erythrocytes. The resulting enzyme is active at
physiological pH and temperature. Phenyl glycosides, oligosaccharides,
mucins, glycolipids, and cell membranes are substrates for this enzyme.
The result of enzyme action on blood type A erythrocytes is the loss of A
activity and the simultaneous appearance of H activity,
characteristic of the O blood group type. Polyacrylamide gel
electrophoresis in sodium dodecyl sulfate demonstrates electrophoresis in
sodium dodecyl sulfate demonstrates that the blood group A-destroying
activity is distinct from the other glycosidase activities found in C.
perfringens.

L4 ANSWER 4 OF 26 MEDLINE on STN
ACCESSION NUMBER: 80199799 MEDLINE
DOCUMENT NUMBER: PubMed ID: 6247065
TITLE: Rapid procedures for determination of endo-N-acetyl-alpha-D-
galactosaminidase in *Clostridium*
perfringens, and of the substrate specificity of
exo-beta-D-galactosidases.
AUTHOR: DiCioccio R A; Klock P J; Barlow J J; Matta K L
SOURCE: Carbohydrate research, (1980 Mar 15) 81 (2) 315-22.
Journal code: 0043535. ISSN: 0008-6215.
PUB. COUNTRY: Netherlands
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 198008
ENTRY DATE: Entered STN: 19900315
Last Updated on STN: 19970203
Entered Medline: 19800828

AB Culture fluid of *Clostridium perfringens* hydrolyzed the
synthetic, chromogenic substrates beta-Gal-(1 leads to 3)-alpha-GalNAc-1
leads to OPh and beta-Gal-(1 leads to 3)-alpha-GalNAc-1 leads to
OC6H4-NO2-o or -p to beta-Gal-(1 leads to 3)-GalNAc and the aglycon. Such
assays facilitated the **characterization** and **purification**
of this endo-N-acetyl-alpha-D-**galactosaminidase** activity. This
activity was **purified** 1200-fold by fractionation with ammonium
sulfate and chromatography on columns of Sephadex-G200, DEAE-Sephadex, and
hydroxylapatite. The final preparation showed activity over a broad range
of pH, with an optimum at 9.0, but less-pure material had two pH optima,
4.0 and 9.0. Another assay method, which employed the synthetic,
chromogenic substrates beta-Gal-(1 leads to 3)-beta-GlcNAc-1 leads to
OC6H4NO2-p, beta-Gal-(1 leads to 4)-beta GlcNAc-1 leads to OC6H4NO2-p, and
beta-Gal-(1 leads to 6)-beta-GlcNAc-1 leads to OC6H4NO2-p, was developed
for the rapid identification of the linkage specificity of
exo-beta-D-galactosidases from any source via a coupled reaction with
N-acetyl-beta-D-hexosaminidase.

L4 ANSWER 7 OF 26 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
ACCESSION NUMBER: 2002:378131 BIOSIS
DOCUMENT NUMBER: PREV200200378131
TITLE: alpha-N-acetylgalactosaminidase from *Clostridium perfringens*.
AUTHOR(S): Smith, Daniel S. [Inventor, Reprint author]
CORPORATE SOURCE: Columbia, MO, USA
ASSIGNEE: The Curators of the University of Missouri,
Columbia, MO, USA
PATENT INFORMATION: US 6399749 June 04, 2002
SOURCE: Official Gazette of the United States Patent and Trademark
Office Patents, (June 4, 2002) Vol. 1259, No. 1.
<http://www.uspto.gov/web/menu/patdata.html>. e-file.
CODEN: OGUPE7. ISSN: 0098-1133.
DOCUMENT TYPE: Patent
LANGUAGE: English
ENTRY DATE: Entered STN: 10 Jul 2002
Last Updated on STN: 10 Jul 2002

AB An isolated and purified alpha-N-acetyl-D-galactosaminidase from *Clostridium perfringens* is disclosed. A method for purifying and isolating the alpha-N-acetylgalactosaminidase from *Clostridium perfringens* by removing neuramidases is disclosed. A process for using the alpha-N-acetylgalactosaminidase from *Clostridium perfringens* in altering type A blood cells to type O blood cells is disclosed. A process for altering cells expressing blood group A epitope by using alpha-N-acetylgalactosaminidase isolated from *Clostridium perfringens* in altering the cells expressing blood group A epitope to cells expressing blood group O epitope is disclosed.

L4 ANSWER 8 OF 26 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
ACCESSION NUMBER: 1979:66384 BIOSIS
DOCUMENT NUMBER: PREV197917006384; BR17:6384
TITLE: PURIFICATION AND PROPERTIES OF ALPHA-N ACETYL GALACTOSAMINIDASE FROM *CLOSTRIDIUM PERFRINGENS*.
AUTHOR(S): LEVY G N; AMINOFF D
SOURCE: Federation Proceedings, (1979) Vol. 38, No. 3 PART 1/ pp. 1432.
CODEN: FEPPA7. ISSN: 0014-9446.
DOCUMENT TYPE: Article
FILE SEGMENT: BR
LANGUAGE: Unavailable

L4 ANSWER 9 OF 26 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
ACCESSION NUMBER: 1976:218389 BIOSIS
DOCUMENT NUMBER: PREV197662048389; BA62:48389
TITLE: CHARACTERIZATION OF AN ENDO ALPHA-N ACETYL GALACTOSAMINIDASE FROM *DIPLOCOCCUS-PNEUMONIAE*.
AUTHOR(S): BHAVANANDAN V P; UMEMOTO J; DAVIDSON E A
SOURCE: Biochemical and Biophysical Research Communications, (1976) Vol. 70, No. 3, pp. 738-745.
CODEN: BBRCA9. ISSN: 0006-291X.
DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: Unavailable

AB Evidence is presented for the presence in filtrates of *D. [Streptococcus] pneumoniae* of an endo-glycosidase capable of acting on the O-glycosidic linkage between N-acetyl galactosamine and serine or threonine residues. The glycosidase was partially purified by chromatography on Affi-Gel 202. The resulting preparation acted on glycopeptides from mouse melanoma, fetuin and pig submaxillary mucin to release a disaccharide characterized as galactosyl-N-acetyl galactosamine. The enzyme

had no action on phenyl α -N-acetyl-D-galactosaminide, asialo ovine submaxillary mucin or monosialoganglioside. A similar activity was detected in a commercial preparation of *Clostridium perfringens* neuraminidase.

L4 ANSWER 10 OF 26 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1999:311290 CAPLUS

DOCUMENT NUMBER: 130:334676

TITLE: **Purification and characterization**
of α -N-acetylgalactosaminidase from *Clostridium perfringens* and its use to modify blood group A epitopes

INVENTOR(S): Smith, Daniel S.

PATENT ASSIGNEE(S): Curator of the University of Missouri, USA

SOURCE: PCT Int. Appl., 50 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9923210	A1	19990514	WO 1998-US23310	19981103
W: AU, CA, JP, MX, US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
CA 2308347	AA	19990514	CA 1998-2308347	19981103
AU 9912986	A1	19990524	AU 1999-12986	19981103
EP 1029036	A1	20000823	EP 1998-956466	19981103
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
US 6399749	B1	20020604	US 1998-185476	19981103
US 2003068804	A1	20030410	US 2002-59447	20020129
PRIORITY APPLN. INFO.:			US 1997-64683P	P 19971103
			US 1998-185476	A1 19981103
			WO 1998-US23310	W 19981103

AB An isolated and purified α -N-acetyl-D-galactosaminidase from *Clostridium perfringens* is disclosed. A method for purifying and isolating the α -N-acetylgalactosaminidase from *Clostridium perfringens* in which neuramidases is removed comprises (NH₄)₂SO₄ precipitation and successive chromatogs. on Sephacryl S-200, DEAE-Sephadex A-50, PBE 94, DEAE-Sephadex A-50, and hydroxyapatite to give 137.4-fold purified enzyme in 2.97% yield. The properties of the isolated enzyme are also provided. A process for using the α -N-acetylgalactosaminidase from *Clostridium perfringens* in altering type A blood cells to type O blood cells is disclosed. A process for altering cells expressing blood group A epitope by using α -N-acetylgalactosaminidase isolated from *Clostridium perfringens* in altering the cells expressing blood group A epitope to cells expressing blood group O epitope is disclosed.

L4 ANSWER 2 OF 26 MEDLINE on STN
ACCESSION NUMBER: 2001128307 MEDLINE
DOCUMENT NUMBER: PubMed ID: 11185964
TITLE: **Purification and characterization of**
alpha-N-acetylgalactosaminidase from *Clostridium*
perfringens.
AUTHOR: Hsieh H Y; Mitra M; Wells D C; Smith D
CORPORATE SOURCE: Department of Pathology, University of Missouri-Columbia,
65212, USA.
SOURCE: IUBMB life, (2000 Aug) 50 (2) 91-7.
Journal code: 100888706. ISSN: 1521-6543.
PUB. COUNTRY: England: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200103
ENTRY DATE: Entered STN: 20010404
Last Updated on STN: 20010404
Entered Medline: 20010301

AB alpha-N-Acetylgalactosaminidase from *Clostridium perfringens* is an exoglycosidase that degrades the human blood type A epitope. A highly **purified** preparation of alpha-N-acetylgalactosaminidase was obtained from *C. perfringens* by salt precipitation, gel filtration, ion-exchange chromatography, chromatofocusing, and high-pressure liquid chromatography. The final preparation was homogeneous by sodium dodecyl sulfate-polyacrylamide gel electrophoresis, with a molecular mass of 72.1 kDa. The enzyme was highly selective for terminal N-acetyl-alpha-D-galactosamine residues. No other substantial glycosidase activities, specifically neuraminidase, were detected. The pH optimum of the enzyme was between 6.5 and 7.0, and activity was unaffected by ionic strength. No protease activity was detected and enzyme activity was stable at 4 degrees C for 12 months. ELISA experiments demonstrated activity against blood type A epitope.

L4 ANSWER 25 OF 26 USPATFULL on STN

ACCESSION NUMBER: 91:10759 USPATFULL
TITLE: Method of producing endo- α -N-acetylgalactosaminidase from microorganisms
INVENTOR(S): Tochikura, Tatsurokuro, Muko, Japan
Kumagai, Hidehiko, Otsu, Japan
Yamamoto, Kenji, Otsu, Japan
Kadowaki, Setsu, Kyoto, Japan
PATENT ASSIGNEE(S): Seitetsu Kagaku Co., Ltd., Hyogo, Japan (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 4990450		19910205
APPLICATION INFO.:	US 1988-189135		19880502 (7)

	NUMBER	DATE
PRIORITY INFORMATION:	JP 1987-112059	19870507
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Weimar, Elizabeth C.	
ASSISTANT EXAMINER:	Patterson, Jr., Charles L.	
LEGAL REPRESENTATIVE:	Irell & Manella	
NUMBER OF CLAIMS:	2	
EXEMPLARY CLAIM:	1	
LINE COUNT:	269	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB This invention provides endo- α -N-acetylgalactosaminidase (endo- α -GalNAcase) from a microorganism belonging to the genus Alcarigenes. This endo- α -GalNAcase is very useful in the analysis of the structure and function of mucin-type sugar chains of glycoproteins, as it is an enzyme that cleaves O-glycosidic linkages of sugar chains of glycoproteins, releasing the sugar chain from said protein.

L4 ANSWER 18 OF 26 USPATFULL on STN

ACCESSION NUMBER: 97:20433 USPATFULL

TITLE: cDNA for α -N-acetyl- galactosaminidase
from Gallus domesticus

INVENTOR(S): Smith, Daniel S., Columbia, MO, United States
Walker, John C., Columbia, MO, United States

PATENT ASSIGNEE(S): Curators of the University of Missouri, Columbia, MO,
United States (U.S. corporation)

NUMBER	KIND	DATE
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PATENT INFORMATION:	US 5610063	19970311
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APPLICATION INFO.:	US 1995-406070	19950317 (8)
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RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1993-135920, filed on 13 Oct 1993, now abandoned	
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DOCUMENT TYPE:	Utility	
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FILE SEGMENT:	Granted	
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PRIMARY EXAMINER:	Patterson, Jr., Charles L.	
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ASSISTANT EXAMINER:	Hendricks, Keith D.	
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LEGAL REPRESENTATIVE:	Kohn & Associates	
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NUMBER OF CLAIMS:	5	
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EXEMPLARY CLAIM:	1	
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NUMBER OF DRAWINGS:	12 Drawing Figure(s); 5 Drawing Page(s)	
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LINE COUNT:	1181	
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CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A **purified** and **isolated** cDNA clone, as set forth in
SEQ ID No:1, encoding the mature chicken α -N-
acetylgalactosaminidase enzyme is disclosed.